CLAIMS

1. A hydrogen-absorbing alloy comprises a composition expressed by the general formula:

$Ti_{(100-a-b-c-d)}Cr_aV_bNi_cX_d$,

where X is at least one member selected from the group consisting of Y (yttrium), lanthanoids, Pd and Pt, each of a, b, c and d is represented, in terms of atomic%, by the relations $8 \leq a \leq 50$, $30 < b \leq 60$, $5 \leq c \leq 15$, $2 \leq d \leq 10$ and $40 \leq a + b + c + d \leq 90$;

and a crystal structure of a principal phase which is a body-centered cubic structure.

2. A hydrogen-absorbing alloy comprises a composition expressed by the general formula:

$Ti_{(100-a-b-c-d)}Cr_aV_bNi_cX_d$,

where X is at least one member selected from the group consisting of Y (yttrium), lanthanoids, Pd and Pt and each of a, b, c and d is represented, in terms of atomic%, by the relations $8 \leq a \leq 50$, $0 < b \leq 30$, $5 \leq c \leq 15$, $2 \leq d \leq 10$ and $40 \leq a + b + c + d \leq 90$;

and a crystal structure of a principal phase which is converted to a body-centered cubic structure by heat-treatment.

3. A hydrogen-absorbing alloy comprises a composition expressed by the general formula:

$Ti_{(100-a-b-c-d)}Cr_aM_bNi_cX_d$,

where M is at least one of Mo and W, X is at least one member selected from the group consisting of Y (yttrium), lanthanoids, Pd and Pt, and each of a, b, c and d is expressed, in terms of atomic%, by the relations $8 \leq a \leq 50$, $30 < b \leq 60$, $5 \leq c \leq 15$, $2 \leq d \leq 10$ and $40 \leq a + b + c + d \leq 90$;

and a crystal structure of a principal phase which is converted to a body-centered cubic structure by heat-treatment.

4. A hydrogen-absorbing alloy having the composition according to any of claims 1 through 3, wherein the principle phase exists within the range where a body-centered cubic structure appears and a spinodal decomposition occurs, exclusive of a C14 single-phase region, where C14 is a typical structure of a Laves phase and $MgZn_2$ type crystal structure; and said principal phase has a regular periodical structure and its apparent lattice constant is from 0.2950 nm to 0.3150 nm.

5. A hydrogen-absorbing alloy according to claim 2 or 3, wherein heat-treatment comprises solution treatment conducted for 1 min to 100 hr at a temperature range of from 700 to 1500°C, and one or both treatments selected from quenching and aging of from 350 to 1200°C after solution treatment.

6. A cell electrode comprising said hydrogen-absorbing alloy according to any one of claims 1 through 4.

7. A cell electrode according to claim 6, wherein said cell electrode has excellent cell characteristics in the maximum discharge capacity and the capacity retaining ratio after 100 charge/discharge cycles.

8. A cell electrode according to claim 7, wherein the maximum discharge capacity is 375 to 465 mAh/g and the capacity retaining ratio after 100 charge/discharge cycles is 80 to 95%.